6. Dominick

Program Name: Dominick.java **Input File: dominick.dat**

You and Dominick were walking in the park when you suddenly came across a stack of Snails. The snails were stacked in order of decreasing size, with the largest on the bottom and the smallest on top. A cool rock is nearby, and Dominick decides he wants the snails stacked on the rock. But he's afraid that picking them all up at once might be dangerous, so he wants to move them one at a time. So, he gets a second rock and starts moving them over one at a time, being careful to never stack a bigger snail on top of a smaller snail. Write a program that, given a stack of snails, shows the order in which Dominick would have to move the snails to move the entire stack to the cool rock.

Input: The first input line will contain a value N (1 <= N <= 100) denoting the number of input lines that follow. The remaining input lines will contain an unknown number of integer values V (1 <= V <= 10) representing the size of the snails, in order from bottom to top. You can assume that no two snails will be the same size, and the snails will be given in descending order.

Output: Output the snail that Dominick moves at each step along the way of moving the stack to the rock. The output should be in the format "Move snail S from rock X to rock Y" where the rocks are numbered 1,2,3 and S is the position of the snail from the top of the starting pile (1 is the top). 1 is the starting rock, and 3 is the final rock. There should be a blank line separating each tower of snail's output.

Sample input:

```
2
3 2 1
1
```

Sample output:

```
Move snail 1 from rock 1 to rock 3
Move snail 2 from rock 1 to rock 2
Move snail 1 from rock 3 to rock 2
Move snail 3 from rock 1 to rock 3
Move snail 1 from rock 2 to rock 1
Move snail 2 from rock 2 to rock 3
Move snail 1 from rock 1 to rock 3

Move snail 1 from rock 1 to rock 3
```